



## MEMORANDUM

**TO:** Patrick Goddard, Director of Facilities, Town of Lexington  
Paul B. Ash, Ph.D., Superintendent, Lexington Public Schools, Estabrook Advisory Committee

**FROM:** Matt A. Fragala, M.S., C.I.H., Senior Scientist

**DATE:** January 14, 2014

**RE:** Surface Samples Collected on December 21, 2013, Estabrook Elementary School, Lexington, Massachusetts (EH&E 19062)

This memorandum provides results of the most recent surface sampling at Estabrook Elementary School (Estabrook). The objective of the surface sampling was the continued evaluation of the effectiveness of the encapsulant applied to polychlorinated biphenyl (PCB)-containing caulk on windows and wall panels. This was accomplished by measuring concentrations of PCBs in surface dust inside Estabrook and on top of the encapsulated surfaces. Results were evaluated according to the criteria outlined in the June 9, 2011, Operations and Maintenance (O&M) Plan. According to the O&M Plan, surface samples must meet the following criteria:

- Potential exposure to PCBs in surface dust shall be controlled to as low as reasonably achievable, and in all cases surface dust PCB concentrations shall comply with the criteria set forth by the U.S. Environmental Protection Agency (EPA) of 1 microgram per 100 square centimeters ( $\mu\text{g}/100\text{ cm}^2$ ).
- Potential exposure to PCBs on encapsulated surfaces shall be controlled to as low as reasonably achievable, and in all cases comply with criterion set forth by the EPA of  $1\text{ }\mu\text{g}/100\text{ cm}^2$ .

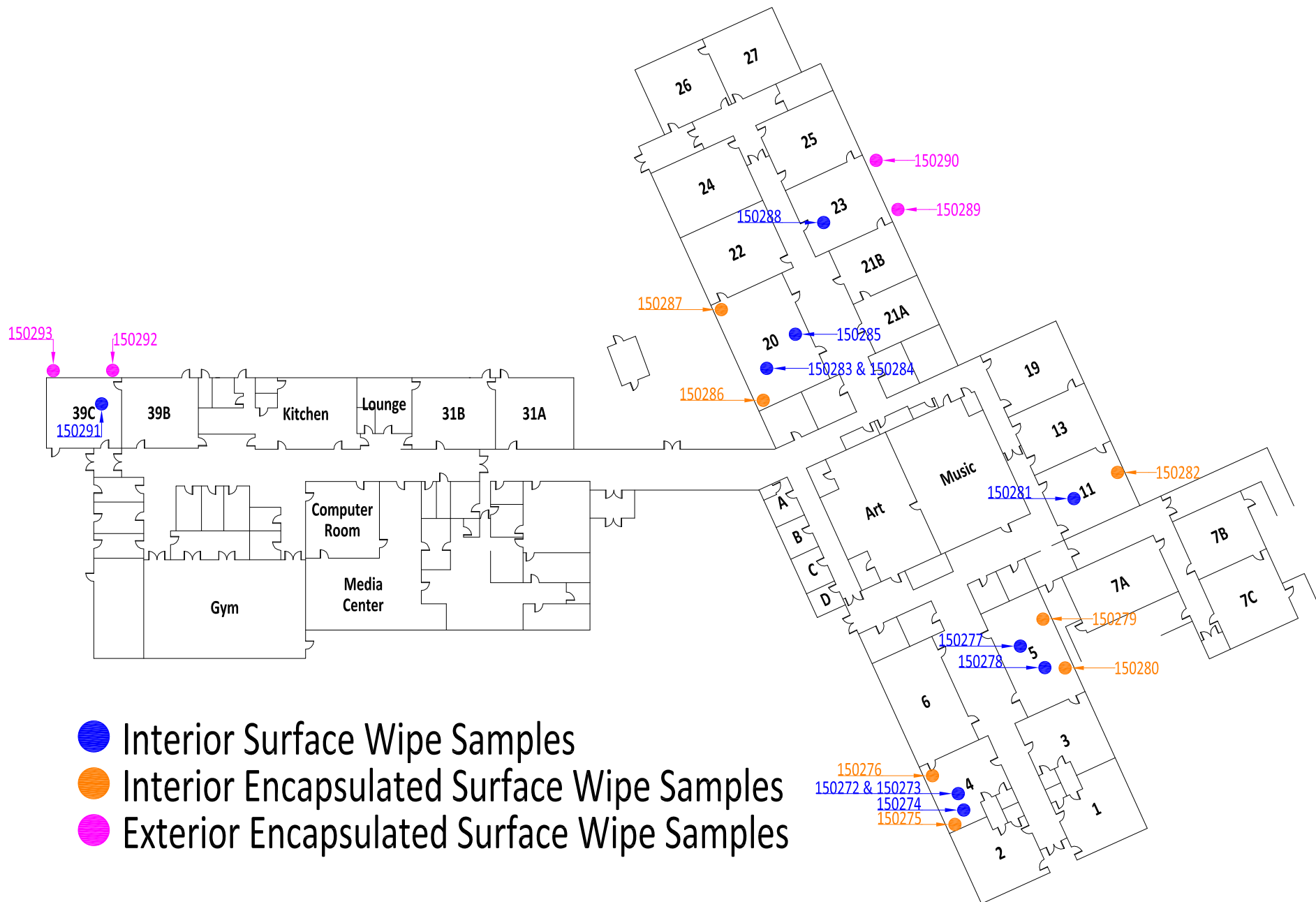
Sample results provided in Table 1 indicate that PCBs were not detected above the detection limit of  $0.5\text{ }\mu\text{g}/100\text{ cm}^2$  in 19 of the 20 locations sampled on December 21, 2013 (PCBs were not detected above the detection limit of  $0.5\text{ }\mu\text{g}/100\text{ cm}^2$  in any of the four quality assurance samples collected). One sample collected from an encapsulated window surface in Room 5 had a measured PCB concentration of  $0.565\text{ }\mu\text{g}/100\text{ cm}^2$ . All sample results meet the surface criteria established by EPA as outlined in the O&M Plan. These results indicate that encapsulation of the interior and exterior surfaces remain effective in maintaining PCB concentrations below the

O&M Plan criteria. Additional caulking will be applied to the internal window frame surfaces in Room 5 as a proactive measure. Sample locations are provided in the attached drawing.


Table 1 Wipe Sample Results for Polychlorinated Biphenyls from Estabrook Elementary School, 117 Grove Street, Lexington, Massachusetts, December 21, 2013		
Sample ID	Description	Total PCB Concentration <sup>1,2</sup> (µg/100cm <sup>2</sup> )
150272	Room 4, circular table	BRL <0.5
150273	Duplicate 150272	BRL <0.5
150274	Room 4, rectangular table	BRL <0.5
150275	Room 4, far left window	BRL <0.5
150276	Room 4, far right window	BRL <0.5
150277	Room 5, student's desk by computer table	BRL <0.5
150278	Room 5, rectangular desk	BRL <0.5
150279	Room 5, second window from left	BRL <0.5
150280	Room 5, third window from right	0.565 (Aroclor 1254)
150281	Room 11, student's desk	BRL <0.5
150282	Room 11, third window from right	BRL <0.5
150283	Room 20, rectangular table	BRL <0.5
150284	Duplicate 150283	BRL <0.5
150285	Room 20, computer table	BRL <0.5
150286	Room 20, far left window	BRL <0.5
150287	Room 20, far right window	BRL <0.5
150288	Room 23, half circular table	BRL <0.5
150289	Room 23, far left window, exterior	BRL <0.5
150290	Room 23, far right window, exterior	BRL <0.5
150291	Room 39C, student's desk	BRL <0.5
150292	Room 39C, second window from left, exterior	BRL <0.5
150293	Room 39C, second window from right, exterior	BRL <0.5
150294	Field blank	BRL <0.5
150295	Media blank	BRL <0.5
PCB polychlorinated biphenyl µg/100cm <sup>2</sup> microgram per 100 square centimeters BRL below reporting limit < less than		
<sup>1</sup> PCB concentration analysis performed by Alpha Analytical, Inc., using U.S. Environmental Protection Agency Method 8082 (GC/ECD).		
<sup>2</sup> Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268 tested. All results below reporting levels, unless noted.		

If you have any questions regarding the information within this memorandum, please do not hesitate to contact me at 1-800-TALK EHE (1-800-825-5343).

Attachment: Surface Wipe Sample Locations



NOTES	
1.	LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2.	BASED ON EH&E'S ASSESSMENT ON DECEMBER 21, 2013.

TITLE: <b>Surface Wipe Sample Locations</b>  CLIENT: <b>Town of Lexington</b>  LOCATION: <b>Estabrook Elementary School 117 Grove Street Lexington, MA</b>	FIGURE ID: <b>A.1</b>	 117 Fourth Avenue Needham, MA 02494 Tel: 781-247-4300 www.eheinc.com
	DATE: <b>12/21/13</b>	
	CREATED: <b>TQT</b>	
	PROJECT: <b>19062</b>	
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